

RECLAMATION

Managing Water in the West

CVPIA Section 3406 (b) (10) Red Bluff Diversion Dam Fish Passage



GOALS

- **Goal A - Substantially improve the long-term ability of anadromous fish to reliably pass upstream and downstream of the RBDD.**
- **Goal B - Maintain reliable and cost effective water deliveries.**

Problem

- **RBDD continues to be a barrier to the upstream spawning migrations of salmonids and green sturgeon during gates-in operation.**
- **Also, it has been increasingly more difficult to maintain reliable water deliveries by the current operations at the RBDD.**



Solution

- Reclamation has determined that to fulfill the requirements mandated under CVPIA Section 3406 (b) (10), that “gates-out” operation at RBDD must be extended to improve fish passage.

Environmental Compliance

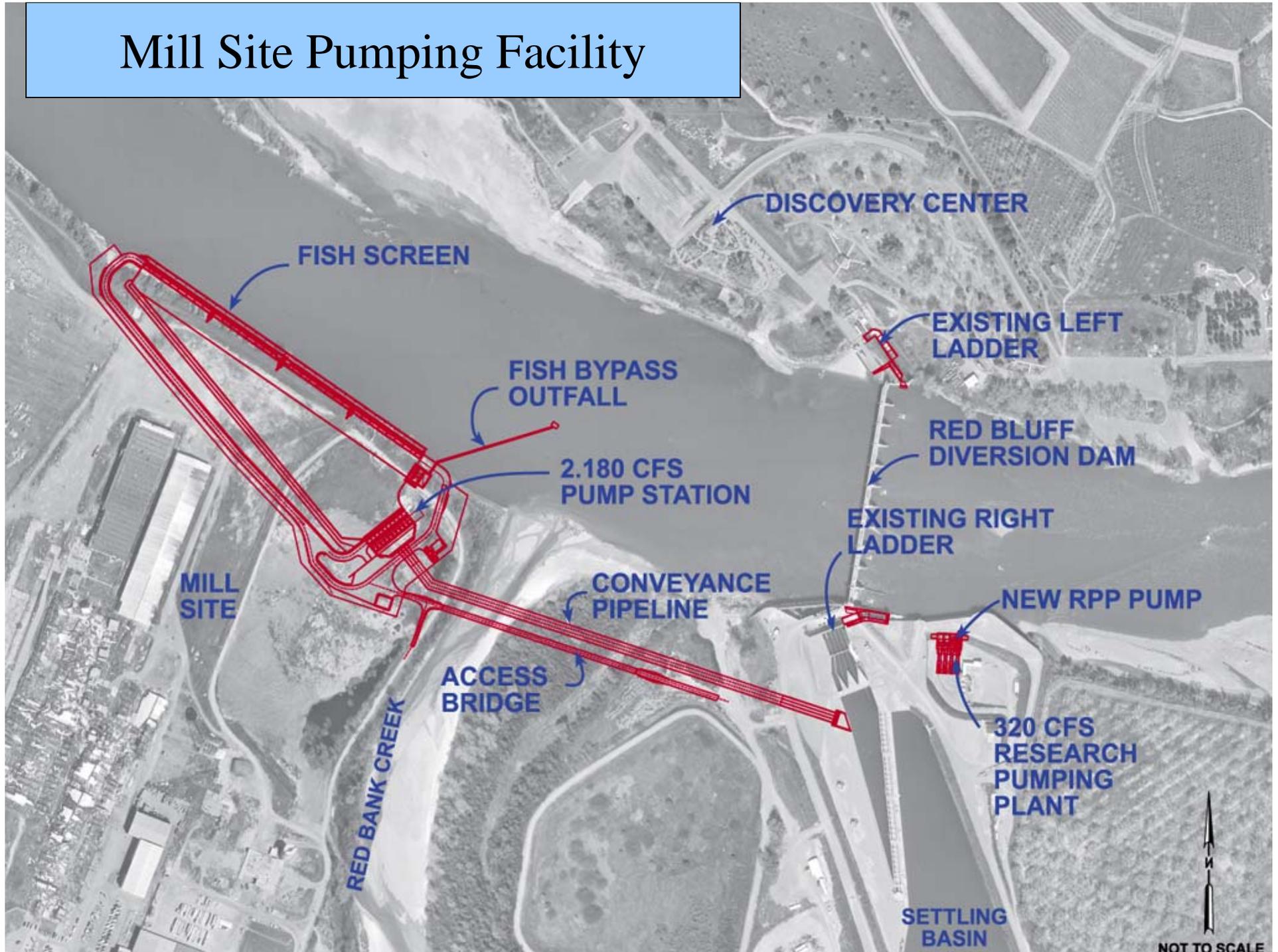
- **May 2008, NMFS's biological opinion determined a no jeopardy for the construction of the pump facility.**
- **Final EIS/EIR completed with Notice of Availability published in Federal Register on May 21, 2008.**
- **Comments deadline was July 7, 2008.**

Record of Decision (ROD)

- Signed on July 16, 2008
- Preferred Alternative: 2-month gates-in operations during July and August.
- Current left- and right-bank ladders would be used.
- A new pumping facility and existing RBRPP would be used in combination.



Mill Site Pumping Facility



Estimated Timeline and Cost

- Acquisition of the Mill Site property currently being pursued.
- Design currently being conducted. Oversight by Project Management Team.
- Construction starts in 2010 with completed project by May 2012. Assuming funding is available.
- Estimated Cost would be 160 – 200 million dollars.

Accomplishments FY 2008

WATER DELIVERIES

Made without interruption with an early gates-out operation.

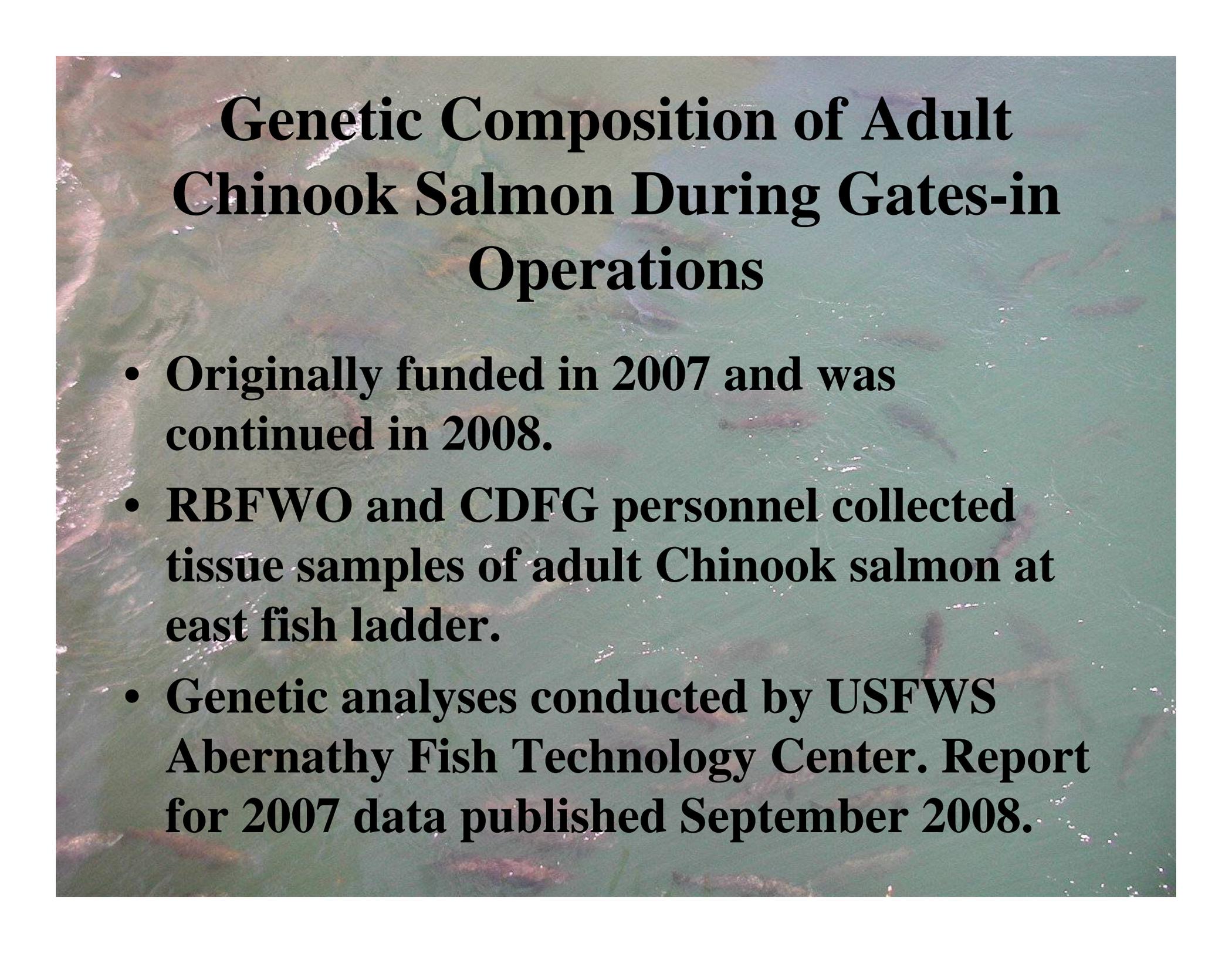
Monitored entrainment during redirection of water from Stony Creek into Tehama-Colusa Canal via Constant Head Orifice.



Accomplishments FY 2008

Fish Passage



An aerial photograph of a river with numerous salmon swimming in the water. The water is a mix of green and brown, and the salmon are visible as dark, elongated shapes. The text is overlaid on this image.

Genetic Composition of Adult Chinook Salmon During Gates-in Operations

- **Originally funded in 2007 and was continued in 2008.**
- **RBFWO and CDFG personnel collected tissue samples of adult Chinook salmon at east fish ladder.**
- **Genetic analyses conducted by USFWS Abernathy Fish Technology Center. Report for 2007 data published September 2008.**

Green Sturgeon Population Assessment

A cooperative project between Reclamation, RBFWO, and UC-Davis.

- Ten adult green sturgeon were tagged and released (Reclamation and UC-Davis).**
- Three spawning habitats were located with multiple eggs being collected (RBFWO).**
- Monitoring and tracking spatial and temporal movements of tagged fish. (Reclamation and UC-Davis).**
- Genetic analysis (UC-Davis).**
- Fifty-four potential holding areas (> 5.0 meters deep) were surveyed between Sundial and Woodson Bridges (All).**

FY 2009 Activities

- **Continue to deliver sufficient water into the Tehama-Colusa and Corning Canals to meet the water districts' demands.**
- **Continue studies of green sturgeon movement patterns, habitat, and passage requirements.**
- **Continue genetic studies of “spring-run” Chinook salmon passing RBDD.**

CVPIA Section 3406 (b) (10)

FY 2008 and FY 2009

BUDGET BREAKDOWN FOR BOTH USFWS and USBR		
TASKS	FY 2008	FY 2009
Program Management	\$100,000	\$100,000
Technical Support	\$500,000	\$370,000
Acquisitions (land, water, and conveyance)	\$1,100,000	\$1,000,000
Outreach and Public Involvement	\$50,000	\$25,000
Planning	\$50,000	\$50,000
Environmental Compliance	\$50,000	\$50,000
Design	\$3,650,000	\$231,000
USFWS Total Costs	\$309,193	\$170,000
USBR Total Costs	\$5,190,807	\$1,656,000*
TOTAL ALL	\$5,500,000	\$1,826,000

*Includes \$1.3 million carry over from FY 2008.

Questions

